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Transformation of Kabul Based Universities from Using Classic Content Management System to Web Content Management System: Key Issues and Challenges

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TRANSFORMATION OF KABUL BASED UNIVERSITIES FROM USING

CLASSIC CONTENT MANAGEMENT SYSTEM

TO

WEB CONTENT MANAGEMENT SYSTEM

KEY ISSUES AND CHALLENGES

Siddiqullah Barikzai

Shaeed Rabani Education University

2017

PREFACE

The last thirty years of war and conflicts have destroyed the infrastructure of Afghanistan. Most of our public and private institutions are still using classic management system for leading their administrative and educational affairs.

The Ministry of Higher Education (MoHE) has provided basic ICT infrastructure (Electricity, Computer, the Internet, Projectors, LCD ...) to Kabul based public universities. The Instructors are using these facilities during lectures and for updating their teaching resources. Similarly, the students are using these resources for learning and building capacity. Some Kabul based universities are in the process of transforming Classic Content Management System (CCMS) to Web Content Management System (WCMS) for using their administrative, teaching, and learning affairs.

A Web Content Management System is a web application that enables users, typically from different departments of an institution to mutually maintain and organize the content of a website in an effective manner.

In the past few years, web content management systems have rapidly grown and encouraged to communicate and publish their information through the web.

The university WCMS is designed and developed to promote directs access to information resources and increases the visibility of the university. WCMS provides access to an organized and specifically designed gateway to useful Web-based content (Auburn University, 2009).

In this research paper, I will discuss problems and challenges resulted from using classic content management system in Kabul based universities (Kabul University, Kabul Medical University, Kabul Polytechnic University, Kabul Education University, Katib University, Jahan University, and Khatam –ul-Nabayeen University). Furthermore, I will discuss the opportunities that WCMS can provide to these institutions.

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In addition, I am thankful to the Higher Education Development Project (HEDP) for providing me enough budgets to complete my research work. Finally, I would like to thank the member of research committee in the Ministry of Higher Education for their guidance and continuous support.

ABSTRACT

The aim of this research is to find problems and challenges resulted from using classic content management system and replacing it with Web Content Management System in Kabul based universities. The study will find answer to the following questions:

Do stated universities have necessary facilities such as electricity, computers, projectors, LCD, and the Internet? Are deans of faculties, chairs of departments, directors of student affairs, and students of these universities ready to use WCMS? What are the main problems and challenges that classic content management system has resulted yet? Finally, which of these two stated systems are cost-effective, quick, efficient, and more reliable for universities to use?

In order to find answers to the above questions, I used mixed (qualitative and quantitative) method. I collected data through literature review, interviews, and questionnaires.

The results and finding of this research indicates that all instructors, directors of student affairs, and students agree that classic content management system is unable to fulfill their needs; therefore, it has to be replaced with Web Content Management System. It is important that all necessary equipment which WCMS needs to be provided before converting CCMS to WCMS. Content Management System is faster, efficient, economical, and more reliable than CCMS. They responded that WCMS is the only system the can fulfill most needs of universities stakeholders.

All participants of the research study agreed on the following thoughts about WCMS:

The primary objective of WCMS is to provide an instant, interactive channel for the distribution of information about the university's mission, programs, contents, services, and events to people.

Currently, most of universities have access to electricity and computers, but they do not have frequent access to the Internet. Some universities have access to slow internet which takes minutes and even hours to open a simple webpage. Therefore, it is important that before introducing new and modern system, all necessary equipment should be provided to these universities.

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ACRONYMS

WCM	Web Content Management System
CMS	Content Management System
CCMS	Classic Content Management System
LMS	Learning Management System
ICT	Information and Communication Technology
KU	Kabul University
KMU	Kabul Medical University
KPU	Kabul Polytechnic University
KEU	Kabul Education University
MoHE	Ministry of Higher Education
HIM	Information Management System

1. INTRODUCTION

Nowadays WCMS have become an essential part of every profession. WCMS make a strong impact on the image of your institution. It is very important when you are more concerned about exploring your programs worldwide. Through WCMS you will get an identity and good business channels. An institution without a WCMS means you are running an institution without having a visiting card; you can say your WCMS is your visiting card. By having an effective profile of your institution, or products /services you can build the corporate image of the institution in your institution WCMS (Shaik, 2005, p. 1).

This research paper discusses Transformation of Kabul based universities from using Classic Content Management System to Web Content Management System. It explores key issues and challenges. Technology plays an important role in all aspects of life. In the world of globalization, Information system is such where data are collected, classified and put into process interpreting the result thereon in order to provide an integrated series of information for further communicating and analyzing. In a progressively more spirited worldwide atmosphere, Information System plays the role as 'enabler and facilitator', which endows with tactical values to the bureaucracy and considerable step up to the excellence of administration.

Similarly, Information and communication technologies (ICTs) are just as essential for modern society as electricity and water networks. Modern everyday life would be utterly unthinkable without information and communication technologies. ICT is a key technology and an interdisciplinary technology; it helps enterprises to reduce costs, improve processes, boost innovation, and increase productivity. ICT also makes the public sector leaner, faster and more citizen-friendly. ICT improves the provision of educational and administrative services, medical care, increases safety and provides greater quality of life.

Most universities in the world use Web Content Management System (WCMS) for their administrative, educational, and service delivery purposes. A WCMS is a computer application that allows publishing, editing and modifying content, organizing, deleting as well as maintenance from a central interface. Such systems of content management provide procedures to manage workflow in a collaborative environment.

Unfortunately, Afghan universities still use traditional and conventional systems for administrative, financial, teaching and learning, and service delivery affairs. Although major public universities (such as KU, KMU, KPU and KEU) and Kabul based private universities (such as Jahan University, Katib University, and Khatam –ul- Nabeyeen University) have access to the Internet, electricity, computers, printers and computer professionals. They still use traditional systems for leading their work. One reason might be that it takes time to leave a system you are used to it and switch to a system that is very new and strange. Another reason could be that these institutions have not felt the real importance, efficacy, fastness, and cost effectiveness of WCMS yet.

Taking this point in mind, I would like to conduct a research on the importance of using web content management system in public and private Kabul based universities, and how it can provide economical and financial benefits to these institutions.

Penn, Pennix and Coulson (2012:2) and King (2014:656) pointed out that WCMS provide following services for administrators, instructors, and students:

Administrators will be able to

- Offer courses
- Enroll new students
- Post various school/university policies
- Post staff evaluation policy
- Provide certificates and transcripts to graduates in short period of time

Instructor will be able to

- Post chapter notes and assignments
- Post various topics on discussion board
- Post student evaluation policy
- Post students exam results
- Receive students feedback

Students will be able to

- Download chapter notes and assignments
- Participate and share ideas on various topics in discussion board
- Provide feedback to their instructors

- Check and observe their exam results

To conclude, I would like to restate that conducting a research on the importance of web content management system can encourage university administrators and instructors to replace conventional system to modern system for leading their administrative, teaching and learning, and student service delivery affairs.

1.1. PROBLEM STATEMENT

Quality, cost, and time are main factors for growing content management system. Organizations can benefit from content management system like tool for alleviation pressures on staff and infrastructure associated with web environment.

Currently, major public and private Kabul based universities do not have WCMS. They use classic system for managing students' grades, transcript and other important information. It takes one to several weeks for a graduate to get his/her transcript and diploma. The current system is out of date, expensive, time-consuming, and disturbing for administrators and students.

Similarly, professors share chapter notes and projects with students via traditional procedure. They submit original copy of chapter notes to students' representatives who then make copies of notes and share with their classmates. It takes weeks or even months for students to get copy of chapter notes. This procedure is time-consuming and ineffective.

Professors want their students to take active part in learning by sharing their ideas and participating in various discussions. However, in a class of fifty or more students, professors cannot give chance to each student to share his/her opinion on each topic. This problem is currently challenging active learning both in schools and universities, and requires teachers to continue their teaching with teacher-centered or what we call passive learning method.

Furthermore, students want to know about their exam results soon after each exam is over. But due to traditional procedure, students have to wait until the whole examination is completed. Afterwards, the department of student affairs, which is responsible for announcing examinations' results, wait until receives all grade sheets from instructors. This process takes a long time and upset both instructors and students.

In addition, this classic system is more expensive. The university administrators have to provide dozens of blank papers, printers, photocopy machines, and recruit more staff to manage all work. This system is time-consuming; on top of that, it is ineffective and vulnerable against fraud. The department of student affairs can easily bring changes in students' grade and transcript.

On the other hand, WCMS is faster, economical, efficient, secure, and reliable system. Instructors can easily share chapter notes and projects with their students. They can comfortably post students' exam results on the system. Similarly, students can quickly and easily have access to learning resources. They can actively participate in learning by posting and sharing their concepts and ideas with respect to their lessons. They can check their exam results from anywhere at any time. The graduates are able to get their transcripts and diplomas within a week soon after their graduation.

To conclude, using web content management system provides great services to university administrators, professors and students.

1.2. PURPOSE OF THE STUDY

The purpose of this study from one hand is to explore problems and challenges resulted from using classic management system in public and private Kabul based universities. On the other hand, the study explores advantages of web content management system and how it can solve problems that are stated above.

1.3. OBJECTIVES OF THE STUDY WERE

1. To find what problems have resulted from the usage of classic management system in public and private Kabul based universities.
2. To identify what needs for a WCMS are identified by current administrators, professors, and students.
3. To discover what characteristics should be presented in the content management system.
4. To find the role, benefits, and characteristics of a quality WCMS for an institution in the light of literature and ideas of university stakeholders.
5. To find which one of these two systems is more economical and cost-effective.

1.4. SIGNIFICANCE OF THE STUDY

The last three decades of wars not only destroyed the infrastructure of Afghanistan, but also kept its people from knowing about changes that occurred in technology and education. The country must use new and contemporary technology in its schools and universities in order to catch up with world's institutions. Our institutions cannot compete with other (external) institutions if we still use our old and traditional methods and instruments in our classes.

In the 21st century, CMS is an important system for leading administrative, teaching and learning, and student services in reliable, efficient, secure and cost- effective procedure. This research will find what problems and challenges the dean of faculties, chair of departments, director of student affairs, and students faced through the usage of classic content management system. Is this system fulfilling their needs? And finally to find what are the advantages of CMS for those universities that are currently using this system.

1.5. SCOPE OF THE STUDY

This study will take place in four public (Kabul University, Kabul Medical University, Kabul Polytechnic University, and Kabul Education University), and three private (Jahan University, Katib University, and Khatam - ul - Nabeyeen University) universities.

As far as I am concern, no one has conducted research yet on the importance of using WCMS in Afghan institutions. Although Kabul based public and private universities have electricity, computer, the Internet, and ICT tools. Furthermore, most administrators, professors, and students have basic computer literacy skills.

Secure web-based Content Management System (CMS) allows non-technical individuals to edit, create, preview and publish content to their Website in real-time. Add copy, insert images, add clickable links (internal or external) and make documents available for download for your clients/students, partners or staff.

KEY BENEFITS

- Reduce outsourced Web maintenance costs
- Speed and flexibility in adding, editing and maintaining content on the fly
- Reduce time to Web for critical content
- No specialized technical skills required to use the interface

- Empower marketing and communication professionals who develop ideas and create and manage contents
- Enables collaboration across all offices or levels of authorization
- Multiple administration levels
- Manage and deliver multi-language content and modules
- Fully Web-based, no additional hardware or software required

To conclude, traditional and classic procedure is more expensive and time-consuming. On the other hand, web content management system is more economical, cost-effective, timesaving, and efficient.

1.6. RESEARCH METHODOLOGY

Research methodology is a science that show the way of how to methodically conduct the research. It is the logical way for implementing several steps to systematically solve the research problem. The study used mixed methods for data collection. The two methods which will use for data collection are: interviews and survey.

The goal of my research study from one hand is to explore the advantages of web content management system for an institution and from another hand, to explore problems that resulted in the absence of this system in Kabul based universities.

I conduct my research in four public (KU, KMU, KPU and KEU) and four private (Jahan, Katib and Khatam -ul- Nabayeen) universities based in Kabul. I will choose two faculties in each university for data collection. I will conduct interviews with deans of faculties, chairs of departments, couple of instructors, and distribute questionnaires on students. Check appendix A and B for details.

I have also plan to conduct interview with directorate of student affairs. Check appendix C for details.

In order to collect data, various tools will be used such as interview, questionnaire, and literature review to elicit the stakeholder needs. Questionnaires and interviews are the techniques that are used to elicit the requirement from many stakeholders in least cost and time. A well designed questionnaire and interview will help to gather unambiguous, correct and complete requirements from stakeholder (Tiwari et al, 2012).

This study aims to solve the research problem by logically adopting various steps:

1. Planning for the choice of the system under study.
2. Planning for the participants in this study.
3. Design of the survey.
4. Implementation of the survey.
5. Collecting data.
6. Data analysis.
7. Reporting.

1.7. EXPECTED RESULTS

The results of my study will encourage administrators, professors, and students to replace conventional system to new and modern web content management system.

Proper records management system could help universities to manage their information, efficiently fulfill their mandate, protect them from litigation, preserve their corporate memory, and foster accountability and good governance.

The usage of WCMS provides following opportunities for administrators, professors, and students:

UNIVERSITY WILL BE ABLE TO

- Offer courses
- Enroll new students
- Post various Faculty/university policies
- Post staff evaluation policy
- Provide certificates and transcripts to graduates in short period of time

PROFESSORS WILL BE ABLE TO

- Post chapter notes and assignments
- Post various topics on discussion board
- Post student evaluation policy
- Post students exam results
- Receive students feedback

STUDENTS WILL BE ABLE TO

- Download chapter notes and assignments
- Participate and share ideas on various topics in discussion board
- Provide feedback to their instructors
- Check and see their exam results

1.8. RESEARCH MAJOR QUESTIONS

The study will mainly address the following questions:

1. What problems have resulted from the absence of a web content management system in public and private Kabul based universities?
2. What needs for a web WCMS is identified by current administrators, professors, and students in Kabul based universities?
3. What characteristics should be present in the web content management system to fulfill the needs of university stakeholders?

1.9. LITERATURE REVIEW

The purpose of literature review is to explore the role, importance, benefits, and ultimately characteristics of a good WCMS from the point of view of various scholars. Since the study focuses on the problem and challenges existed in classic content management system and advantages of CMS for institutions, the literature review also mainly focuses on the role and benefits of quality WCMS for institutions.

WCMS is an important part of each profession nowadays. It plays a crucial role in exploring an idea. Creating a WCMS is an excellent way of sharing and exchanging knowledge and experiences with others. It makes a strong impact on the image of a company or an institution. Therefore, every company and institution is expected to have a WCMS; otherwise it is like a “salesman without having business card” (The Importance of A WCMS, 2004).

Shaik (2005) in his article “Importance of having Website and WCMS” believes that website and WCMS are the identity of an institution. He further says that there are many other reasons which encourage institutions and companies to have WMCS. For example, there are about 970 million Internet users around the world, which makes 15% of the world’s population. So, it is a good way to “getting involved with a large percent of people for sharing ideas and finding potential customers” (Shaik, 2005, p.1).

A WCMS can communicate longer messages than a business card or a booklet. It is an effective source for beginning interaction with a potential client. Through WCMS you can reach your prospective audiences and discuss intended issues. Through WCMS, an institution can share all its programs and activities with the rest of the world, and everyone can come to know about it. Having a WCMS means as you are in touch and accessible to the world 24 hours a day, 7 days a week. If anybody wants to get information online at any time about your institution, he or she can have it right away without any hesitation (Marketing, 2003).

Education is changing! Chinese proverb says: Do not confine your children to your own learning, for they were born in another time.

- Interaction is increasingly electronic.
- The process of ‘teaching’ and ‘learning’ has changed.
- Cost & Usage of IT in Education! Based on a USA study of costs in 1997-98 compared to 2002-03, the average cost of hardware per student dropped by 30%. The

cost of Instructional software increased by 50%. The cost of internet services trebled. The cost of professional development stayed roughly the same.

- CMS in Today's Education Process attract the students, showcases the institution – retains & provides resources for students and staff.
- The educational benefits of learning via the web have been studied at length, as have the more general implications of Information and Communication Technologies (ICT) for the future development of Higher Educational Institutions (HEIs) and the potential decentralization of University resources.

Ival (2009) in his article, “Choosing the Right Web Designer for you,” illustrates that competition exists in each field and no one can stop the competition. However, by owning a WCMS, we can create our identity and give customers the opportunity to compare and buy our products. He further says that WCMS are good tools for advertising, and an institution can cheaply and easily publicize its history, programs, activities, and needs to the whole world to attract a greater audience and support. WCMS provides the opportunity for teachers, students and other people to look at the faculties, departments, curricula, syllabi, and other important materials of the university and stick to their intended programs. Reaching to the world through the Internet, websites, and WCMS is fast and economical, while the traditional way of sending and receiving documents (post office) is costly and time consuming.

It is a proven fact that CMS have brought countless benefits to website management. A web content management system offers unique benefits. Arguing for the benefits of a CMS, Ektron (2001) lists the following benefits:

- (1) Anytime, anywhere Web publishing, (2) Faster updating, (3) Audit trail and user authentication, (4) Efficient workflow management.

Han (2003) cites the following advantages: (1) Improved information accuracy, (2) Increased flexibility, (3) Enhanced system management, and (4) Reduced Maintenance and Cost.

CMS offers many other benefits which include: (1) It allows non-technical staff the ability to update web site content without knowing HTML or FTP; (2) It is easy-to-use; (3) Workflow / approval -- can be as complex or as simple as desired, (4) Each unit decides on the workflow that best meets their needs; (5) Individuals who have natural responsibility for content can maintain that content themselves (with approval process if desired), (6)

Consistent visual identity (CLF); (7) Content more likely to be kept up-to-date (review reminders); (8) Information is more easily found; (9) It makes site maintenance and (re-)development easier and far less costly; and finally (10) Web professionals are freed to focus on higher-value tasks, i.e. developing interactive functionality, improving site usability (Akanagan, 2010).

There has been a tremendous growth of web applications in the last decade.

Penn, Pennix and Coulson (1994:2) and King (1997:656) pointed out that many institution relations depend on the proper creation and maintenance of recorded information. The medium on which the recording of information could be done may be paper, microfilm, audiotapes, videotapes, photographs, slides, or any computer-readable medium, such as computer tapes or disks, compact disks and optical disks. Gold (1995:1) characterized an institution's management of its records as the 'corporate ... secret weapon' and 'the winning strategy' that give the organization the competitive edge.

1.10. THE BENEFITS OF SETTING UP A SCHOOL [UNIVERSITY] WCMS

In the article, “Webwise: an Internet Resource for Teachers”, suggests that schools and universities need to have a WCMS for the following reasons:

- ✓ A WCMS provides teachers and students with safe and secure access to teaching and learning resources.
- ✓ Educators’ and learners’ works can be viewed by a classmate, colleagues, and other audience which will motivate them.
- ✓ Majority of students can be kept informed about events which take place in institutions.
- ✓ “Students easily feel the ownership of the design and content of webpages which lead to real respect for the technology and higher standards of ICT work”
- ✓ A WCMS improves social interaction and communication skills of teachers and students by sending and receiving emails.
- ✓ A WCMS that has useful links extends the learning experience into the home.
- ✓ A WCMS provides opportunities to other universities and donors to get information about the university. They can be educated about the university, its programs and needs, and get answers to many of their questions which will help to decrease the number of phone calls the university receives with this information on its system.

- ✓ Other institutions can be encouraged to interact and make partnerships with the university.
- ✓ There is a possibility that the school [university] WCMS becomes a resource of information for other schools [universities] by posting helpful educational articles and journals.

1.11. CHARACTERISTICS OF A GOOD WCMS

Now the question is: what qualities or characteristics should a WCMS have in order to attract more visitors to the system? Another question is: How can a WCMS provide more opportunities for improvement in an institution or a company? The following articles have explicitly described the characteristics of a good WCMS which not only attracts visitors to the system, but also helps the institution by drawing the attention of other institutions to help the institution academically.

In the New York Times article, “How to Make a WCMS Sing for You”, the author claims that the idea of “if you build it, they will come” might have worked for Kevin Costner in the movie “Field of Dreams”, but it is definitely not true for a WCMS. A WCMS should be carefully developed to be clever, compelling, and contain attractive content, in order to draw more visitors to visit, explore the WCMS (Taub, 2006, p.1).

In another part of the same article, Nielsen (2006) says that a visitor spends about 30 seconds reviewing a home page, and only 50 percent scroll down the screen for further information. Hence, it is essential that a company’s or institutions main message and activities should be written in a few words so that visitors feel no need to scroll down the page for further information. Moreover, he says that most WCMS place their important information in subpages. This is not effective because usually visitors like to see their needed information in the first glance after opening the web page and do not like to scroll down a page or click on subpages for more information.

Flanders (2006) in the same article says that a good WCMS should exclude unnecessary design and large and spinning graphics which take a long time to upload. He also recommends that no introductory splash page which forces a visitor to watch a video or animation should be added in a WCMS. Splash pages are only used in pornography, gambling, and multinational websites which need to guide users to particular country’s page.

Wentzell (2003) argues that a good WCMS should be accessible, accurate, appropriate, and appealing. He says that a quality WCMS and its links to other pages should always be promptly accessible on most browsers. There are some WCMS which work only in limited browsers, and if they are opened in other browsers they don't work properly. Another characteristic of a good WCMS is that its content should be taken from reliable sources so that visitors can comfortably use them. The content of the WCMS should meet audiences' level of understanding. In other words, the visitors should be able to understand the content; it should not include too many academic terms. On the other hand, it should not include overly simplified language, which could bore the audience. The last characteristic that Wentzell (2003) suggests for an educational WCMS is that it should be appealing. For example, good colors should be used both for fonts and backgrounds so that visitors can easily read articles of the system. Usually readers like to see WCMS having white background and black font color, because it is easily readable. They do not like to browse a WCMS that has similar background and font color. So, it is always advised for WCMS developers to use effective colors in their system in order to attract readers. The links should also be easily understood and followed by visitors so they enjoy browsing page to page.

Additionally, Warne (2009), in his article, "Characteristics of a Good WCMS", believes that a professional WCMS should contain: "good use of color, meaningful graphics, quality photography, simplicity, and text that is easily read" (Warne, 2009. p.1). Beyond this, he says that it should have fast loading pages, low scrolling, and consistent layout.

Another important point is made by Bhachech (2009). He argues that the first thing you should consider is the name for your WCMS. For example, "if your business is related to 'food color' then it is good to have name 'foodcolor', because it makes it easier for the visitors to find it" (p.2). Do not force visitors to think about what your WCMS name might be. Instead, make it vivid and similar to your business or institution name so that visitors can easily find it (2009. P.1).

Furthermore, Bhachech (2009) says that the pages of a WCMS should have clear titles and content to lead visitors to right direction and to easily find their needed data. A good WCMS does not contain frames, flash files, JavaScript, image maps, or dynamic names. Also, it does not contain heavy images, flash videos, animations, and so on, because they take longer time while loading and the browser may not respond. Consequently, chances are that

browsers or visitors may lose patience and close the system. Instead, WCMS should be simple, user-friendly, and easy loadable on any browser.

Bhachech (2009), in another article titled, “Writing Importance to Increase WCMS Ranking”, says that posting useful materials can increase number of visitors to visit a WCMS. “Content is king”, particularly in educational systems, where each visitor opens the WCMS to learn something new and interesting about different academic topics (Bhachech, 2009, p.1).

The articles can persuade those visitors who are really interested in subjects discussed in the articles. For example, the articles posted for school and university teachers and students can include contemporary methods of teaching and learning. Once visitors find useful articles in a WCMS which fits their needs, they are more likely to regularly browse the WCMS for further articles.

As eLearning becomes more popular, training departments may find themselves considering the differences between a content management system vs learning management system. Both of these systems are progressive and provide ways to manage various aspects of eLearning content. The differences between the two are significant and should be considered before finalizing a purchase of either system.

WHAT IS A LEARNING MANAGEMENT SYSTEM?

A learning management system (LMS) is another type of software application, but it is much more robust than a content management system. Rather than version control, an LMS is more of a training control system. An LMS provides a platform for housing all types of eLearning courses, as well as tracking who has completed them, when, and what kind of score they received on assessments. Furthermore, an LMS allows administrators or trainers to prepare reports, make assignments, and send reminders all in one central location.

DIFFERENCES BETWEEN CMS, LMS AND WCMS

While all three stated applications have their place in an organization, the differences between a content management system vs learning management system are significant in their core functionality. For students or learners, a CMS is more of a passive application where they can simply view documents. With an LMS, learners have the ability to view,

listen, and interact with the data. They have the options to try examples, complete assessments, and give evaluation or feedback on courses.

A **Web CMS**, on the other hand, is perfect for creating and managing a website. It allows multiple editors to create and edit web content. It lets you create menus, sidebars, pages, sections and feedback forms. It manages user comments and helps you setup web blogs and serve their posts in reverse chronological order. It can also load (and configure) themes that change how your website appears to your users.

In summary, it is all in the name actually. A CMS places emphasis on “content”, whereas an LMS places emphasis on “learning” while WCMS places emphasis on both content and learning.

1.12. THE PARTICIPANTS

The participants of this study were different groups in Kabul based universities. The participants included the deans of faculties and chairs of departments, faculty members, directors of student affairs, and students.

I used mixed method in my studies, for quantitative part, I randomly selected my participants. However, for qualitative part, I selected them intentionally taking the representativeness of the sample and access to the sample in mind.

For the interviews, the administrators (deans of faculties, chairs of departments and, faculty members) were interviewed in addition to some directors of student affairs whom I already contacted.

It took me 45 days to meet each of my interviewees individually, and conduct interview with them. Some university administrators asked me to bring formal letter from the Ministry of Higher Education or Kabul Education University to allow me conduct my research. I brought letter of consent to them and as a consequence, they let me to conduct my interviews and distribute questionnaires to their students. Each of the interviews took 25 to 35 minutes, depending on the length of the interviewee responses. After completing my interviews, I transcribed all of the interviewee responses to English on my own.

INTERVIEW PARTICIPANTS (KABUL BASED UNIVERSITIES)					
Interview Participants	Number of Participants	Male	Female	Teaching Experience	Administrative Experience
Deans of Faculties	9	9	0	12 – 37	2 – 7
Chairs of Departments	25	22	3	8 – 30	1 – 5
Directors of students affairs	14	12	2	X	1 – 20
Lecturers	14	9	5	5 - 32	X
	Total = 62	52	10		

Table 1: describes some characteristics of interview participants (Kabul based University)

For the survey, the participants were students from different Kabul based universities some characteristics of the questionnaire participants are explained in the tables below.

QUESTIONNAIRE PARTICIPANTS (KABUL BASED UNIVERSITIES)				
Universities	Number of Participants	Male	Female	Year
Kabul University	120	90	30	Seniors
Kabul Medical University	120	82	38	Juniors
Kabul Polytechnic University	120	105	15	Seniors
Kabul Education University	120	70	50	Juniors
Katib University	120	85	35	Seniors
Jahan University	120	95	25	Seniors
Khatam –ul – Nabeyeen University	120	100	20	Juniors
	Total = 840	627	213	

Table 2: describes some characteristics of questionnaire participants (Kabul based University)

The questionnaires contained statements which mainly described the problems and challenges resulted from using classic content management system in the universities and the role and importance of Content Management System. Each of the statements had multiple choice answers to give participants chance to choose choices which best met their ideas.

I distributed questionnaires to 840 students of both public and private Kabul based universities (60 to each of the targeted faculties).Check appendix B for details.

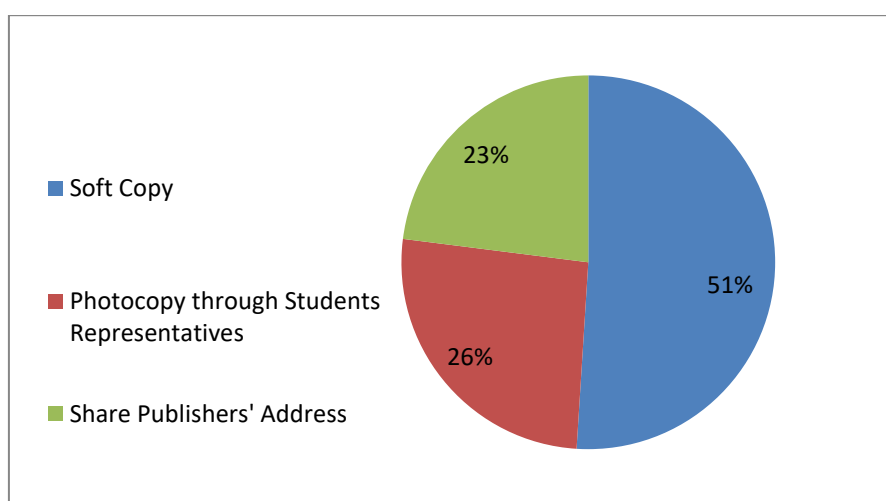
2. DATA

2.1. QUANTITATIVE RESULTS

In order to obtain perspectives regarding the problems and challenges resulted from using classic management system in Kabul based universities and to find and explore the advantages of web content management system that can provide to these institutions, 840 questionnaires were distributed to the students of these universities. The questionnaires contained a variety of questions which addressed the stated issues.

The results and findings of these questionnaires are as follow:

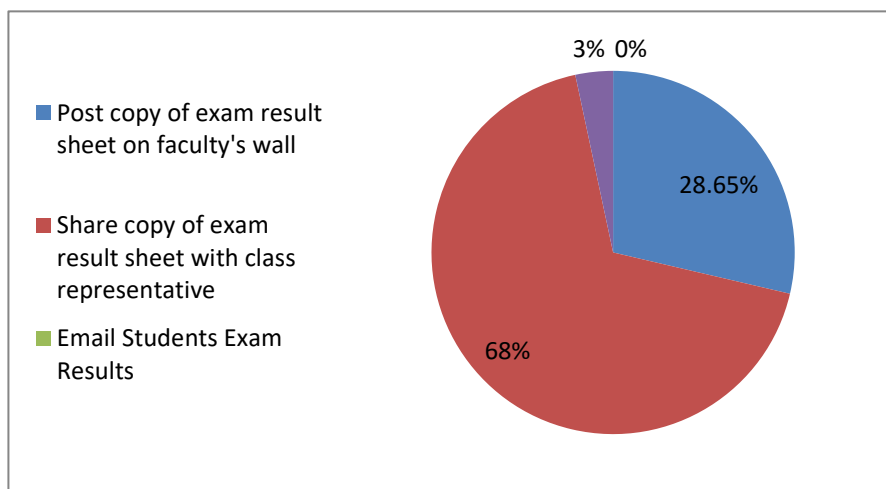
1. How do you receive chapter notes and other learning resources from your instructors?



Graph 1: Procedure of sharing chapter notes and other learning resources

The above graph shows the procedure of handling chapter notes to students. 51% students responded that their instructors handle soft copy of their chapter notes to students, 26% students responded that instructors handle hard copy of chapter note to students representatives and they are expected to make enough photocopies of the chapter notes and distribute them on their class fellows, and finally 23% students said that instructors only share the address of bookstores / publishers from where they can find and purchase the resources.

2. How do students get informed from their exam results?

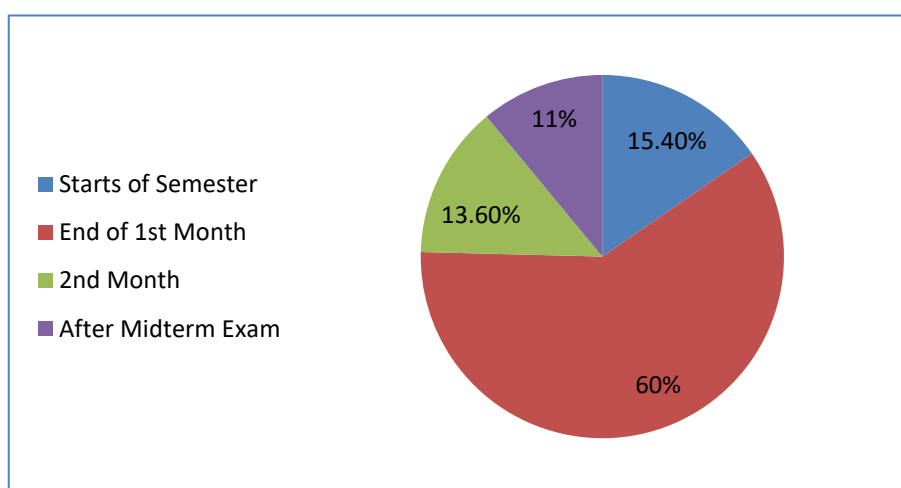


Graph 2: Procedure of Observing Exam Results

The above graph expresses the procedure through which students can observe their exam results.

10.3% students said that instructors share exam results with students via email, 25.7% students believed that instructors make copies of exam result sheets and post sheets on department's wall, 61% students responded that instructors make copies of the result sheets and submit them to students representatives to share with their classmates, 3% students said that instructors announce exam results in their classes.

3. Do students receive chapter notes and other learning resources in the beginning of each semester from their instructors?

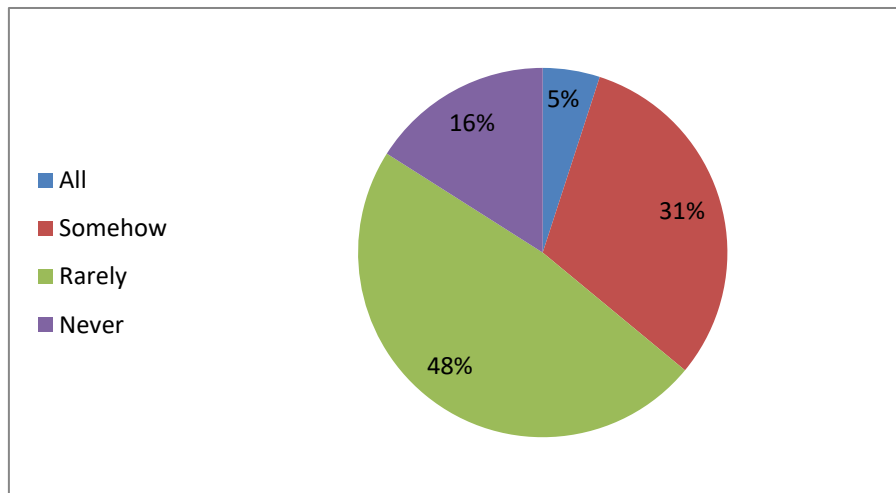


Graph 3: Sharing Chapter notes and other learning resources on-time

The above graph shows time period of a semester in which students receive chapter notes and exam results.

15.4% students responded that they receive chapter notes and other learning resources at the beginning of each semester, 60% students admitted that they receive learning resources at the end of first month, 13.6% students said that they receive chapter notes in the second month of the semester, and ultimately 11% students said that they receive chapter notes after the midterm exam of each semester.

4. Does classic content management system fulfill the needs of students?

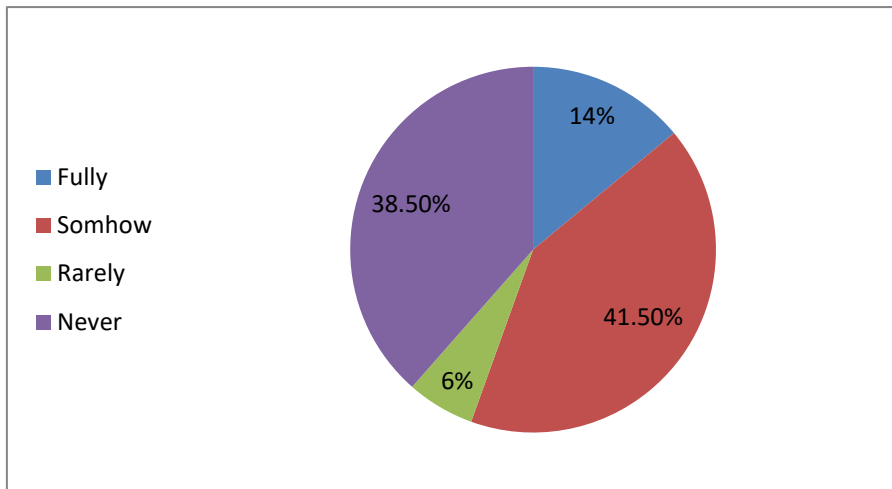


Graph 4: Can classic content management system fulfill the needs of students?

The above graph indicates students' views with respect to classic content management system whether it fulfill their needs or not.

5% students said that classic content management system is a comprehensive system and can fulfill all needs of students, 31% students believe that classic content management system is somehow a good system, 48% students responded that classic content management system is rarely fulfilling needs of students, and finally 16% students admitted that classic content management system is a poor system and can never fulfill the needs of students.

5. Do students aware about the importance of CMS for an institution?

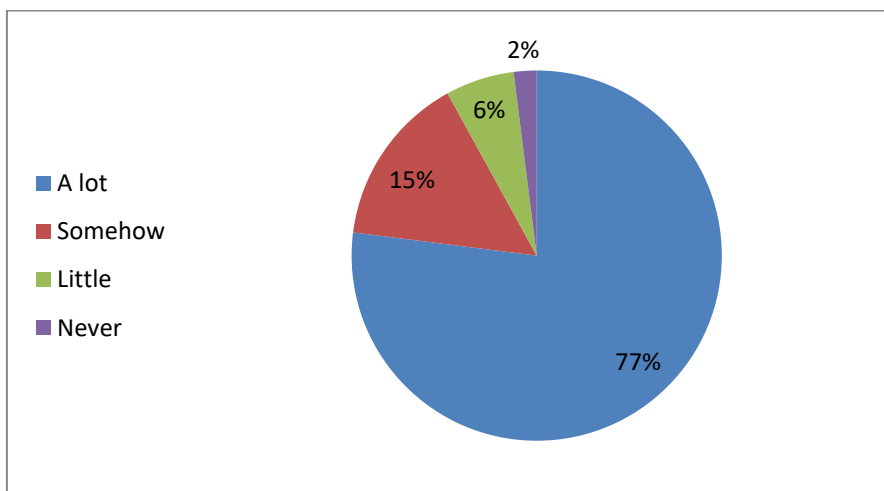


Graph 5: Level of students' awareness about CMS

The above graph indicates the level of students' awareness about the importance of CMS in an institution.

14% students believe they are fully aware about the importance of CMS in an institution, 41.5% students said they are somehow aware, 6% students indicated that they are rarely aware, and finally 38.5% students admitted that they have no awareness about the importance of CMS for students.

6. How much advantages the usage of CMS has for students?

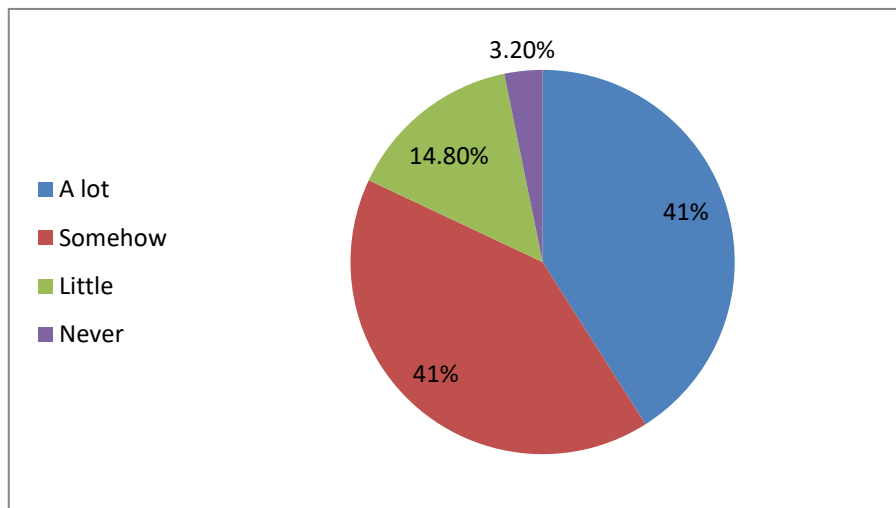


Graph 6: Advantages of CMS from Students Perspective

The above graph indicates the volume of CMS significance for students.

77% students believe that CMS has a lot of significance for students, 15% students said that it is somehow significance, 6% students responded that CMS is rarely significant, and ultimately 2% students said that it has no significance for students.

7. Does your university have the facilities of electricity, computer, Projector, LCD, and the Internet?

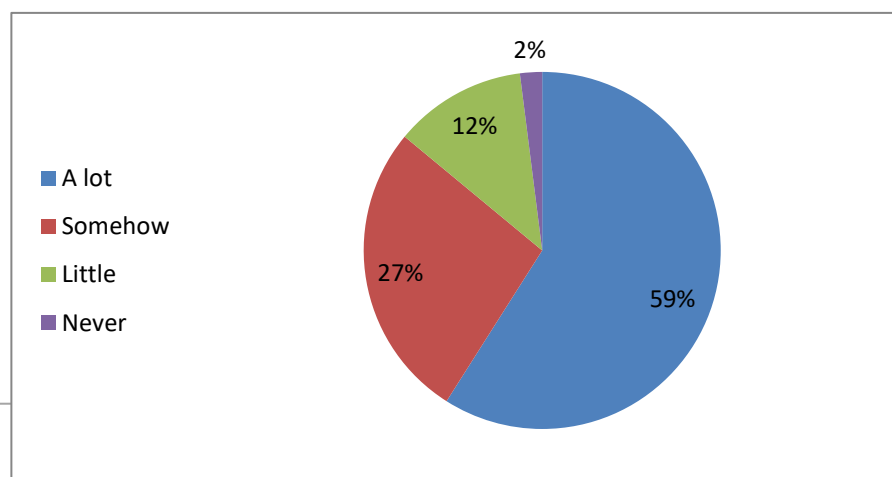


Graph 7: The level of Necessary facilities' (electricity, computer, Internet ...) existence in university

The above graph indicates the presence of necessary facilities for the usage of CMS in Kabul based universities.

41% students admitted that their universities have a lot of access to ICT tools, 41% students responded that their universities have somehow access to ICT tools, 14.8% students said that their universities have little access to stated tools, and ultimately 3.2% students indicated that their universities have no access to ICT tools.

8. Do you have basic literacy of using ICT (Computer, Internet, Application software ...)?

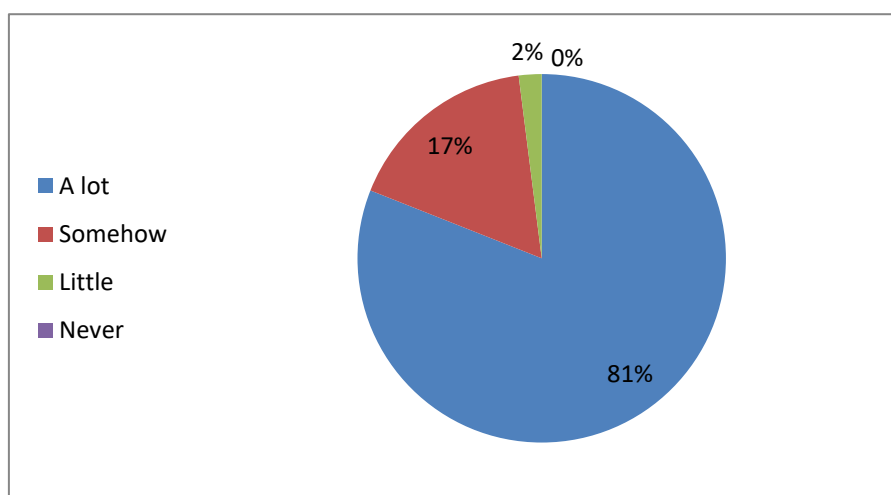


Graph 8: Level of ICT basic literacy (Computer, Internet, Application software ...) for students using CMS

The above graph shows the level of students' literacy with respect to ICT.

59% students believe they have enough literacy of ICT usage, 27% students said that they have somehow literacy of ICT usage, 12% students responded they have little knowledge of using these tools, and finally 2% students admitted that they have no literacy of ICT usage.

9. Do you eager to use CMS?

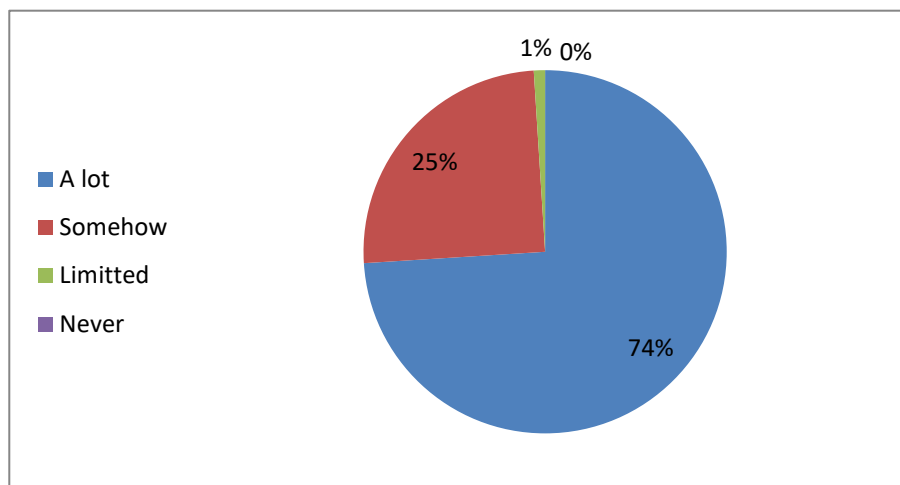


Graph 9: Level of Students Eagerness for using CMS

The above graph shows the level of students' eagerness with respect to CMS usage. 81% students seems a lot eager to use CMS in their departments, 17% students seems averagely eager to use CMS, and 2% students seems little eager to use CMS in their learning process.

10. In your opinion, Can web content management system fulfil the needs of students?

**Graph
web**



**10: Can
content**

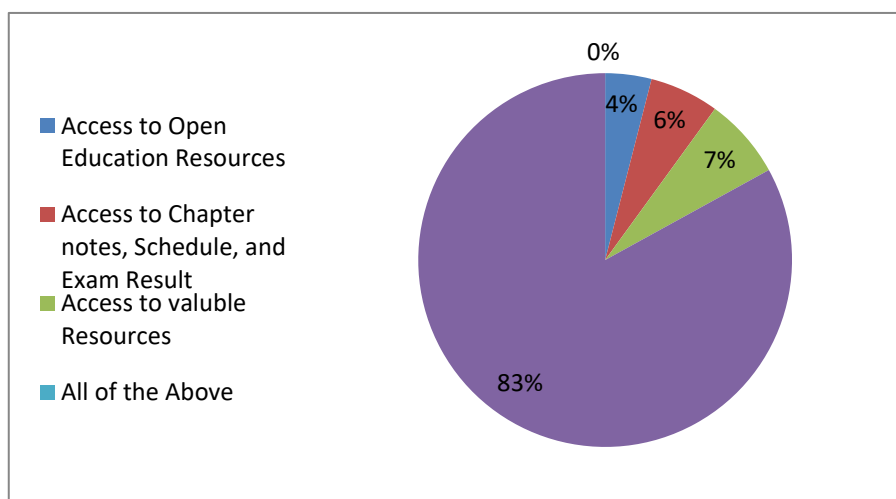
management system fulfil the needs of students?

The above graph shows students' views with respect to CMS whether it is fulfilling their needs or not.

74% students said that CMS is fulfilling their need a lot, 25% students responded that CMS is averagely fulfilling their needs, and 1% students admitted that CMS is partially fulfilling their needs.

11. What facilities CMS should provide to students to fulfil their needs?

What



**Graph 11:
facilities**

CMS should provide to students to fulfil their needs?

The above graph indicates types of facilities that CMS should have for students to fulfill their needs.

4% students said that CMS should provide access to Open Education Resources (OER) so that students can use them for learning, 6% students admitted that CMS should

provide access to chapter notes, schedules, open discussion, and exam results, 7% students responded that CMS should provide access to facilities that are valuable and cost effective, and ultimately 75% students said that CMS should provide all stated facilities to students.

2.2. QUALITATIVE RESULTS

In order to obtain perspectives regarding the problems and challenges resulted from using classic management system in Kabul based universities, and to find and explore the advantages of web content management system, 68 interviews were conducted with deans of faculties, chairs of departments, instructors and directors of students' affairs of these universities. The interview questions contained a variety of questions which addressed the stated issues.

2.3. INTERVIEWS WITH INSTRUCTORS

In the first section, I would like to state the responses of instructors with respect to interview questions. The results and findings of these interviews are as follow:

In response to first question, how you share chapter notes and other learning resources with your students, the instructors said:

A few instructors replied that they submit hard copy of their chapter notes to the representatives of each class so that they make enough photocopy of the notes and distribute on their classmates. The representative is required to hand over the original copy of the chapter notes back to instructors at end.

However, a few other instructors responded that they submit soft copy of their chapter notes including slides to their all students. They also leave a copy of learning resources on desktop of a computer in computer lab so that students can take copy of the chapter notes in their storage devices.

On the other hand, a group of instructors said that they only share the address of publishers with their students from where they can buy hard copy of learning resources. There are number of photocopy shops in front of each university which have copies of most chapter notes and other learning resources taught in that university. Students go there and purchase copy of intended chapter notes very easy.

Those instructors who have decent knowledge of using ICT tools said, they upload soft copy of their learning resources online in websites such as dropbox, Google drive, box

...and share address link of them with students. The students have access to learning resources from anywhere and at any time; they can easily download for themselves.

Finally, a group of instructors said that they have Content Management System (CMS) in their universities where they leave soft copy of learning resources. The students can download them at any place and anytime with more ease and comforts.

When the instructors were asked whether their students receive learning resources on-time, they said:

A group of instructors said, their students receive learning resources and chapter notes on-time, while another group instructors said, after presenting each lesson they upload learning resources to CMS, Google drive, Dropbox or box. The students can download them at any time with more ease and comforts.

The next group of instructors admitted that access to learning resources depend mostly on students. If they are familiar with ICT and have access to computer and the Internet, they can easily have access to the resources.

The final group of instructors said that they share chapter notes and other learning resources with their students via traditional procedure in which a hard copy is submitted with student representatives; they are responsible to make copies of notes and share with their classmates. This procedure is more time consuming; as a consequence, the students receive chapter notes sometime even at the end of a semester.

In response to how you share students' exam results with department of student affairs, the instructors said:

A group of instructors stated that they announce students' exam results through their university CMS, but the next group of instructors said they write students' grades in result sheets and submit them to the department of students' affairs. The department posts copy of results in their faculties' wall or windows so that students can see their results.

Another group of instructors said that they take photos of result sheets via their smart phone and email to the class representatives; the representatives later post these photos on their classroom Facebook page so that all classmates can see their results from anywhere.

When the instructors of universities were asked what are the weaknesses of classic content management system in your opinion they replied:

The first group of instructors said that both, classic content management system and CMS have advantages and disadvantages. Classic content management system is time-consuming and uneconomical while CMS needs computer, the Internet, and basic skills of ICT.

The second group of instructors said that classic content management system along with being time-consuming is unreliable. For instance, the exam result sheets could be easily stolen, burn or edited. They are fragile against fraud. Furthermore, the chapter notes can be hardly updated or shared with students.

The third group of instructors responded, in classic content management system the grades have to be filled with more care and attention. They should be checked again by few more instructors to make sure that there is no error in writing as well as in calculation.

When the instructors were asked whether you have information about CMS, they said:

A group of instructors replied that they do not have information about ICT and CMS.

The next group of instructors replied that they have basic literacy of CMS; they require a short training on how to upload chapter notes and students exam grades to the system.

Another group of instructors said that two or three years ago we participated in a training course held in the Ministry of Higher Education. The main purpose of the training was to let us know how to use HIMS system developed by the ministry. We learned how to post our subjects' exam results on the system. Unfortunately, that project failed and we could not use it for the declared purpose any longer.

When the instructors were asked whether your faculties have access to facilities such as electricity, computer, and the Internet, they replied:

The first group of instructors said they have access to electricity, computer and the Internet but these facilities are not enough so that each student and instructor can use them individually.

The second group replied that they have access to computer and the Internet but the internet is unstable and temporary. One hour we have access to the internet but the next hour

it is gone. Sometime it gets so weak that even opening a simple webpage takes hours and hours to open. This is the reason that most universities are still using classic content management system for leading their administrative and educational affairs.

In response to whether your department and faculty's instructors are able to use CMS for leading their instructional and educational work, the instructors replied:

If all necessary facilities that CMS needs are provided, we are ready to use it in our university, but the next group of instructors said that we need a training on how to upload our chapter notes, learning resources, teaching schedule, attendance sheet, and other relevant files to the CMS. After the training we will be able to use CMS for leading our instructional work more enthusiastically.

When the lecturers were asked what the benefits of CMS are for lecturers, they said:

Lecturers will be able to upload all learning resources in the particular webpages of CMS and students can easily download them at anytime and from anywhere. The lecturers will be able to post students exam results even from their homes to CMS and similarly students will have access to results from their homes. CMS will improve efficacy, reliability, and usage of ICT tools both by the lecturers and students in universities.

When the lectures where asked about the economical advantages of CMS, they said:

The instructors believe that CMS limit and decrease the usage of papers, photocopy, financial expenses and losing of documents. By having access to a computer and the internet, a student can have access to all learning resources, schedule, and exam results from home while classic content management system cannot provide these comfortable and economical facilities.

When the lectures were asked whether the lectures, director of student affairs, and students need training on how to use web content management system, they replied:

Those lecturers who have literacy of using ICT do not require a training, but those who did not have literacy of ICT usage said they need a comprehensive training on how to properly use CMS.

In response to last question of interview, what facilities web content management system should have for instructors to fulfil their needs, they replied:

A group of instructors said, the Ministry of Higher Education and relevant administrators should provide all necessary facilities for universities so that instructors can use them for improving the quality of teaching.

Another group of students said that CMS has to be simple and explicit so that instructors can use it with more ease.

The last group of instructors replied that our country is going through massive problem now and it is not time for thinking of having CMS in our institutions. Whenever, the currently survive from these challenges, the universities should replace classic content management system to CMS, because this system is cost-effective, reliable, and efficient.

2.4. INTERVIEWS WITH DIRECTORS OF STUDENTS AFFAIRS

Besides conducting interviews with lecturers, I have conducted interviews with directors of students' affairs of Kabul based universities.

Below are their responses to the interview questions:

When the directors of students' affairs were asked which procedure you use currently for the registration of new students, they replied:

Some of them said that through the help of classic content management system, we give a hard copy of registration form to new students to fill and submit it back to the department. The names of students are later recorded in the attendance sheet of their classes in the light of information they have provided in the form. It is important that freshmen should provide copy of their IDs, baccalaureate degree and 4 photos to the department during registration. It is important to mention that all process is carried in the light of lists which are provided by the Ministry of Higher Education to these universities. The names of students who succeeded in the entrance exam (Kankore) to universities are stated in these lists.

Another group of directors responded when the list of students who succeeded in the entrance exam to universities' arrive to their universities, they register them via the help of classic system. When the students pass to second semester of first year, their names are then officially registered to CMS of their universities. These students then receive chapter notes and learning resources, schedules, and exam results through the system till the end of their bachelor programs.

When the directors of students' affairs were asked how they share attendance sheets and exam results with students, they said:

All of the directors agreed that they prepare students' attendance sheets and exam results via the help of MS Word or MS Excel. The attendance sheets are then submitted to each class representative or lecturers. They carry their relevant work in the light of credit system; it is used in almost all universities of Kabul.

When the directors were asked how they prepare instructors salary and students' accommodation expenses reports they replied:

The directors of private universities said that they do not pay students accommodations expenses. They prepare lecturers' salary reports in the light of their daily teaching schedule and deliver the report to financial department.

However, the administrators of public universities replied that they prepare the report of lecturers' salary and students' accommodation expenses in the light of their daily attendance schedule. The number of days that lecturers and students are present in a month will be reported to the financial department of the universities.

In response to question which procedure you use for managing students' exam results and graduates' transcript, they said:

Most of administrators replied that they prepare these reports with the help of MS Word and MS Excel. The graduates receive their transcripts after completing official process. A number of private universities' directors said that they provide transcript of two semesters at the end of each educational year. They provide them transcript with the help of CMS where students all semesters grades are stored.

When the directors of students affairs were asked which procedure you use for sharing exam results with students, they said:

A number of directors replied when the lecturers share students' exam result sheets with the department, they immediately make copy of the results and post them on intended faculty's wall or windows so that students can observe the results.

Another group of directors said when all lecturers share exam results with the department; the directors immediately summarize the results and post them on public places in their universities.

In response to what are the main challenges of classic content management system, the directors of students affairs replied:

A few administrators said that classic content management system is an out of dated system which requires lots of time for processing even a simple task. This system is insufficient, uneconomical, and data could be easily edited. Along with stated disadvantages that this system has, the volumes of documents are large and can be easily stolen or burned.

The directors of students' affairs in response to what facilities (electricity, computer, the Internet) they have in their faculties said:

All directors said that they have access to electricity but their views with respect to the existence of computer and the Internet were different.

Some said that they have enough computers in their faculties to use for administrative affair while other said they do not have enough computers or their computers are out of dated and have technical problems.

The problem of internet was considerable in most universities. Some universities have access to the Internet but it is very slow while in some universities it connects and disconnects simultaneously which cannot be used for leading administrative and educational affairs.

The last group of directors said that they do not face any serious challenge with respect to the Internet and this is the reason that they use computerize system for leading their work.

When the directors of students' affairs where asked whether they need any particular training for using CMS, they replied:

A number of them said they have basic literacy of ICT usage and therefore they do not need a lengthy training while other said that they need training on how to upload instructional and exam schedules, exam results, transcripts and diplomas' data.

The next group of directors who did not have literacy of ICT said they need a well comprehensive training to understand and learned how to use CMS properly.

What are the advantages of CMS for departments of students' affairs, the directors replied?

CMS has a lot of advantages for the department of students' affairs. For example, the official documents and exam grades can be nicely arranged, and can be quickly and nicely

searched and found. CMS is more efficient, and reliable system and student can be easily informed about any even that occurs in the university. Students can easily and comfortably receive their diplomas and transcripts through the help of this system.

When the directors were asked about the financial benefits of CMS, they replied:

CMS speed up process; decrease the usage of papers and stationary, photocopy, recruitment of more employers. In the meanwhile this system is more secure, reliable, convenient, and data can be easily stored and kept safe. On the other hand, classic content management system is unreliable, unsafe, and data can be easily edited or burned.

In response to the last question, what facilities web content management system should have for directorate of students' affairs to fulfill their needs, they replied:

All necessary facilities that CMS needs have to be prepared; the speed of internet should increase, and comprehensive training should also be provided to targeted directors. As the consequence of these efforts, the CMS will be used properly.

3. DISCUSSION

A WCMS gives you [institution] the opportunity to tell potential customers what you are about and why you deserve their trust and confidence (Simms, 2005, p. 1).

The literature suggests that effective CMS should be attractive, clever, compelling, and include outstanding contents in order to attract more users and visitors. Moreover, the CMS should keep out needless design, large and spinning graphics, videos, animations. They make the CMS heavy and it cannot be easily loaded. Furthermore, the graphics and colors used in effective CMS should be attractive and meaningful. In addition, effective CMS need to have fast-loading pages, low scrolling, consistent layout, and be accessible on most browsers.

The use of CMS provides good learning and administrative opportunities for administrators, instructors, and students. It plays significant role in higher education by providing decent opportunities for distance learning and quality education. It provides quick access to reliable and updated educational resources, and fast communication between instructors and students.

Computers, the Internet and CMS were firstly introduced in 2001 in Afghanistan. Currently, a number of universities in Afghanistan have access to these technological resources; they use them for leading their educational and administrative work. The instructors and students of Kabul based universities share chapter notes, assignment, projects, and exam results with each other via the help of this system.

3.1. WCMS - FIVE THINGS TO LOOK FOR

The growth of eLearning has meant that more education providers are adapting this flexible and powerful tool to deliver lessons. But not all WCMS are created equally. One challenge for human resources and learning and development managers is to figure out which WCMS offers the best solutions, and which WCMS is the right one for their companies specifically.

3.1.1. SCALABILITY

The perfect WCMS should be flexible enough to accommodate classes of all sizes. You should be able to upgrade the system to fit growing numbers of users if you anticipate more students will sign up for your eLearning courses.

3.1.2. SECURITY

All good WCMS must have stringent security measures in place to protect sensitive information such as student records, course information, and payment details. In the open environment provided by such online facilities, it is important your WCMS allows access only to the relevant people.

3.1.3. ADMINISTRATIVE SUPPORT

WCMS must also serve as an administrative hub for your institution, helping keep tabs on the students and courses it facilitates. It should be able store, manage, and relay information on student profiles, assessment results and other key details.

3.1.4. ADAPTABILITY

Make sure your WCMS is adaptable enough to provide the best and most varied learning experience possible for your students. When choosing a WCMS, check to see if it has the capability to upload and deliver courses from other eLearning providers.

3.1.5. COST EFFECTIVENESS

You should approach any major investment in your business with an eye on a sizeable ROI, and the same applies with your WCMS. Consider all the costs involved in implementing it and running it, e.g. set up, administration, and training fees. Make sure the WCMS you select is right for the size of your organization and budget.

3.2. LIST OF MANAGEMENT SYSTEMS

OPEN SOURCE

- Moodle
- aTutor
- Canvas
- Chamilo
- Claroline
- eFront
- ILIAS
- LAMS
- Moodle
- OLAT
- OpenOLAT
- Sakai
- SWAD

- Totara LMS

- WeBWorK

SAAS/CLOUD

- Cornerstone OnDemand Inc.
- DoceboLMS
- Google Classroom
- Grovo
- Halogen Software
- Informetika
- Inquisiq R3
- Kannu
- Latitude Learning
- Litmos

- TalentLMS
- ParadisoLMS
- Saba Cloud
- SkillBuilder LMS
- TOPYX
- TrainCaster LMS
- WizIQ

PROPRIETARY

- Blackboard Learning System
- CERTPOINT Systems Inc.
- Desire2Learn
- eCollege
- Edmodo
- Engrade
- WizIQ
- GlobalScholar
- Glow (Scottish Schools National Intranet)
- HotChalk
- Informetica
- ITWorx CLG (Connected Learning Gateway)
- JoomlaLMS
- Kannu
- Latitude Learning LLC
- QuestionMark
- Uzity
- SAP
- Schoology
- SSLearn
- Spongelab
- Skillsoft
- EduNxt
- SuccessFactors
- SumTotal Systems
- Taleo
- Teachable
- Vitalect

HISTORICAL

- [ANGEL Learning](#) (acquired by Blackboard in May 2009)
- [Blackboard](#) (acquired by Providence Equity in 2011)
- [Click2Learn](#) and Docent merged to become SumTotal Systems in 2004
- [CourseInfo LLC](#) (precursor company to Blackboard, which became Blackboard's core technology, founded by [Stephen Gilfus](#))
- [Elluminate](#) (acquired by Blackboard in 2010)
- [GeoLearning](#) (acquired by SumTotal in 2011)
- [Learn.com](#) (acquired by Taleo in 2010)
- [Litmos](#) (acquired by [CallidusCloud](#) in 2011)
- [Peoplesoft](#) (acquired by Oracle in 2005)
- [Plateau](#) (acquired by Successfactors in 2011)

- [Softscape](#) (acquired by SumTotal in 2010)
- [SuccessFactors](#) (acquired by SAP in 2012)
- [SumTotal](#) (acquired by Skillsoft in 2014)
- [Taleo](#) (acquired by Oracle in 2012)
- [WebCT](#) (acquired by Blackboard in 2005)

3.3. TEACHING WITH MOODLE IN HIGHER EDUCATION

With the use of technology, education took a big leap and is changing its paradigms, from a closed model, and teacher-centered classroom to a model more open and student-centered, where the teacher moves from one holder of knowledge for a learning mentor, able to manage diverse discourses and practices as well as stimulate the intellectual capacities of students in the treatment of information available.

Moodle, TelEduc, BlackBoard, WebCT, Toolbook, TopClass Server, among others. These environments vary in many ways in the language they were developed, either in features and features each offers (Cook, 2001).

3.3.1. WHY MOODLE

The name Moodle is an acronym for Modular Object Oriented term Developmental Learning Environment and is a course management system (Course Management System - CMS) through the Internet, also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE).

It is a Free web application that educators can use to create effective online learning sites. One of its main advantages is its open source, or has open source allowing any user with programming knowledge to modify and adapt the environment according to their own needs. Moodle can be installed at no cost at many servers. How has code opened there are no maintenance costs need to pay for upgrades. Nobody can force you to make updates, buy tools that you do not want or determine how many users should possess; the teacher manages the platform according to their needs. This platform is widely used worldwide by universities, communities, schools, instructors, courses, teachers and even businesses (Dougiamas, 2001).

3.3.2. GENERAL FEATURES OF THE MOODLE PLATFORM

The Moodle platform has three levels of use, with features of differential use and access. So is the concept of trustee or administrator (the manager of the platform), teacher (who may also have other designations, for example, trainer, facilitator, promoter) and the student (learner, participant, among others). These roles and their features are represented in the following table (Taylor, 2003).

Role	Function
Administrator	Manages the whole environment
Teacher	Generate events, courses or subjects according to the thematic areas defined Generate training or events which are designated
Student	Accesses and interacts with a specific event and participates in the subjects they are subscribed

Table 3: Roles and functions in Moodle Platform

CHAT

The Chat module allows participants to have a real-time synchronous discussion. Chat contains a number of features for managing and reviewing chat discussions.

DATABASE

The Database module allows the lecturer and/or students to build, display and search a bank of record entries about a topic. The format and structure of these entries can include images, files, URLs, numbers and text amongst other things.

FORUNS

Forums are used for asynchronous online discussion. By subscribing to a forum, participants receive copies of each new post by email.

GLOSSARY

The Glossary activity allows participants to create and maintain a list of terms and definitions, as in a dictionary. It can be used to build an annotated list of useful websites or FAQs. The definitions can be searched or browsed in many different formats, and can be linked from other places on the site.

QUESTIONNAIRE

The questionnaire module in Moodle allows you to create a survey or questionnaire for students to fill out, for instance a course evaluation or a reading response survey.

SCHEDULER

Scheduler is a Moodle Activity that allows the course instructor to post available meeting times and then has the students sign up for the slot that best suits them. This is useful for required meetings between student and professor, such as advising days, or simply for optional office hours.

LESSON

A Lesson allows a lecturer to create conditional pathways through material. It consists of a number of pages, each page normally ending with a question and a number of possible answers. It can be a helpful tool for practicing material, studying, and testing.

HOT POTATOES

The Hot Potatoes module, allows teachers to administer Hot Potatoes quizzes via Moodle.

ASSIGNMENTS

Assignments allow students to submit work online, including uploading any file type (Word document, Powerpoint, video clip etc.). Lecturers can grade and give feedback.

ONLINE TEXT

This option is for relatively short, text-based assignments. For example, if you wanted to ask students to submit their thoughts on a reading assignment, you might use this kind of assignment. Students will not be able to upload files from their computer; they will simply see a text editor box, approximately paragraph-sized, where they can type something up online and submit it to you.

QUIZ

The Quiz module allows the lecturer to design and set quiz tests, and includes a range of question types and reporting options.

WORKSHOP

A Workshop is a peer assessment activity. It allows participants to assess each other's projects, as well as exemplar projects, in a number of ways.

To sum up, the Moodle is an e-learning platform used throughout the world. Universities, communities, schools and teachers serve up to her to communicate and transmit

information to their educational communities. The great success of Moodle platform due to the fact that an open source system, providing programmers the opportunity to make new contributions, with new applications, making it one of the most widely used in courses distance (Bottentuit , 2007).

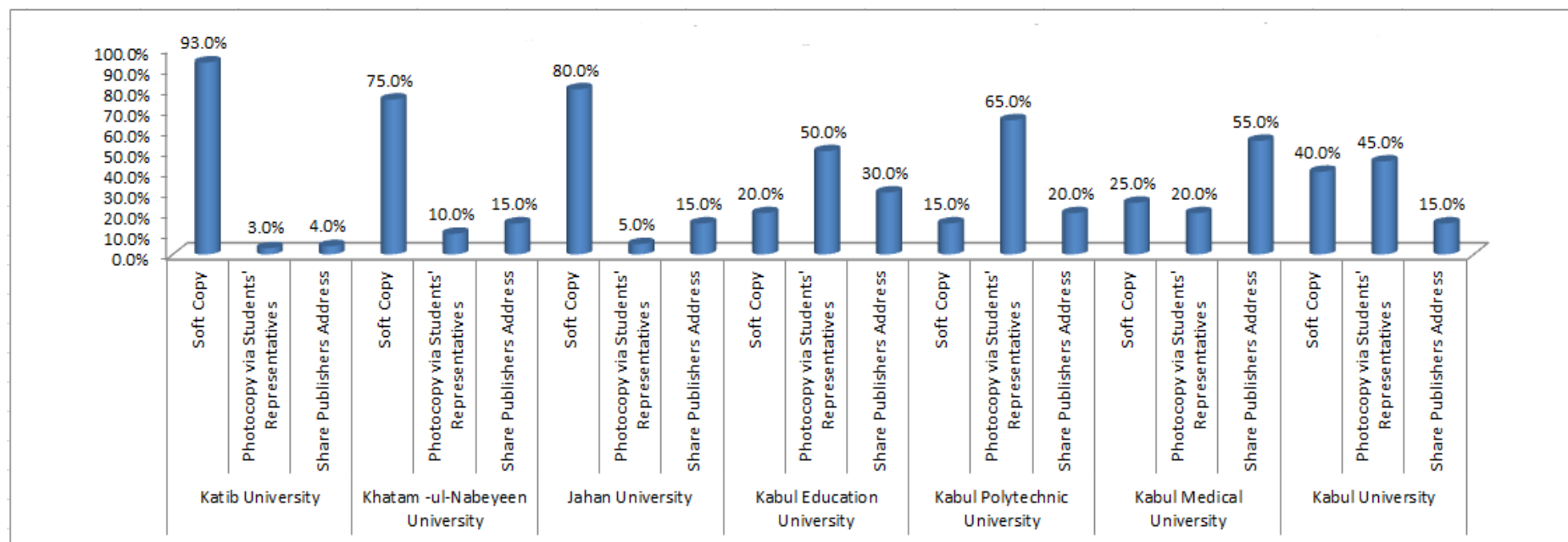
3.4. FINDINGS AND LIMITATIONS

After processing and analyzing data from the field with respect to classic content management system and web based content management system, the following results and findings are found and listed:

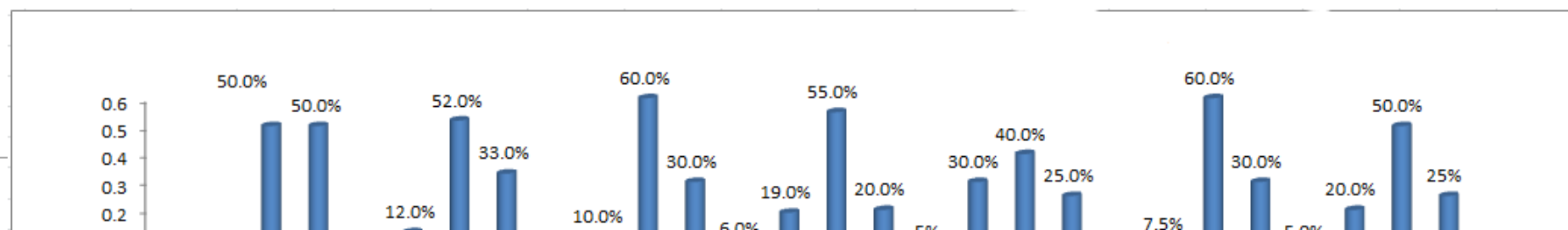
The first point founded in the research is that the procedure of sharing chapter notes and other learning resources in the public and private Kabul based universities are different.

Majority instructors of the private universities share learning resources in soft mode with their students, while the instructors of public universities share hard copy of chapter notes with the representatives of classes to make copies of the notes and distribute on their classmates accordingly. The original copies of chapter notes should be submitted back to the instructors.

The next procedure used by the instructors of public universities is to share the address of publishers who have copies of chapter notes with students. The students can then purchase their intendant chapter notes and learning resources form there.



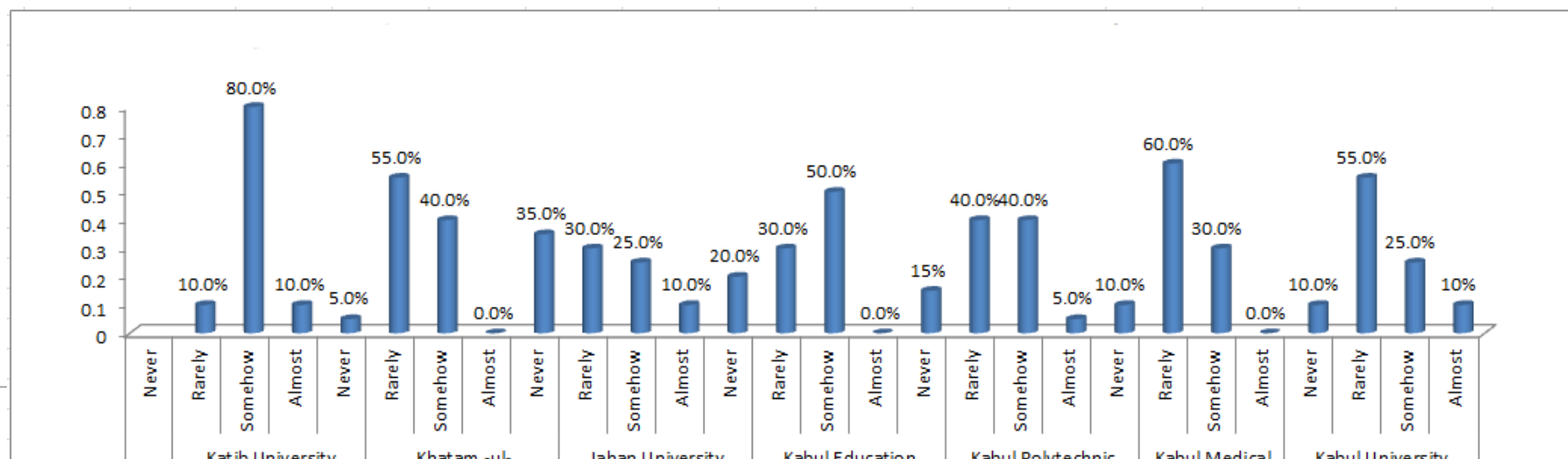
beginning of each semester while the students of public universities receive them a bit later.



Resource: Research Findings

Graph 13: Sharing chapter notes and other learning resources with students at the beginning of semester

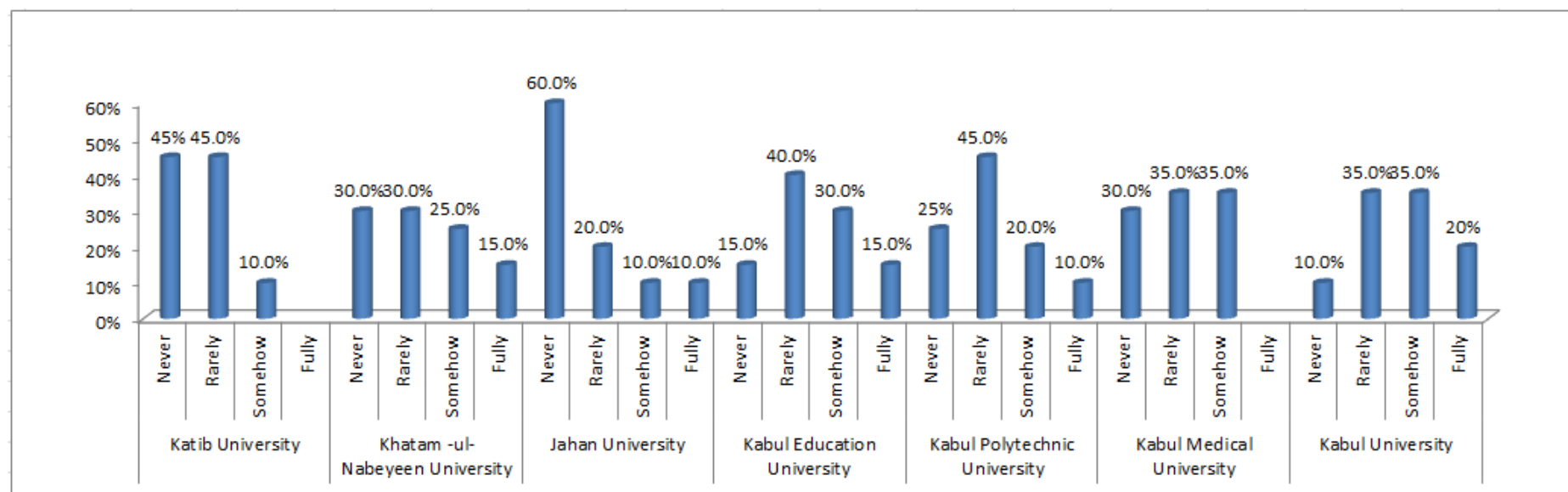
The third point founded in this research is that all directors, lecturers, and students of Kabul based universities agreed that classic content management system does not fulfill their needs and has to be transferred to CMS. However, it is important that all necessary facilities such as stable electricity, computers, the Internet should be provided prior to the transformation of system.



Resource: Research Findings

Graph 14: Can classic content management system fulfill needs of students?

The fourth point founded in this research is that students do not have enough awareness about CMS. When they see or read word, CMS, they think of the tables created in MS Word, MS Excel, and MS Access which contain information about exams, grades, teaching schedule, and so on. It is important that this (CMS) system has to be comprehensively introduced to them and its advantages shared with students.

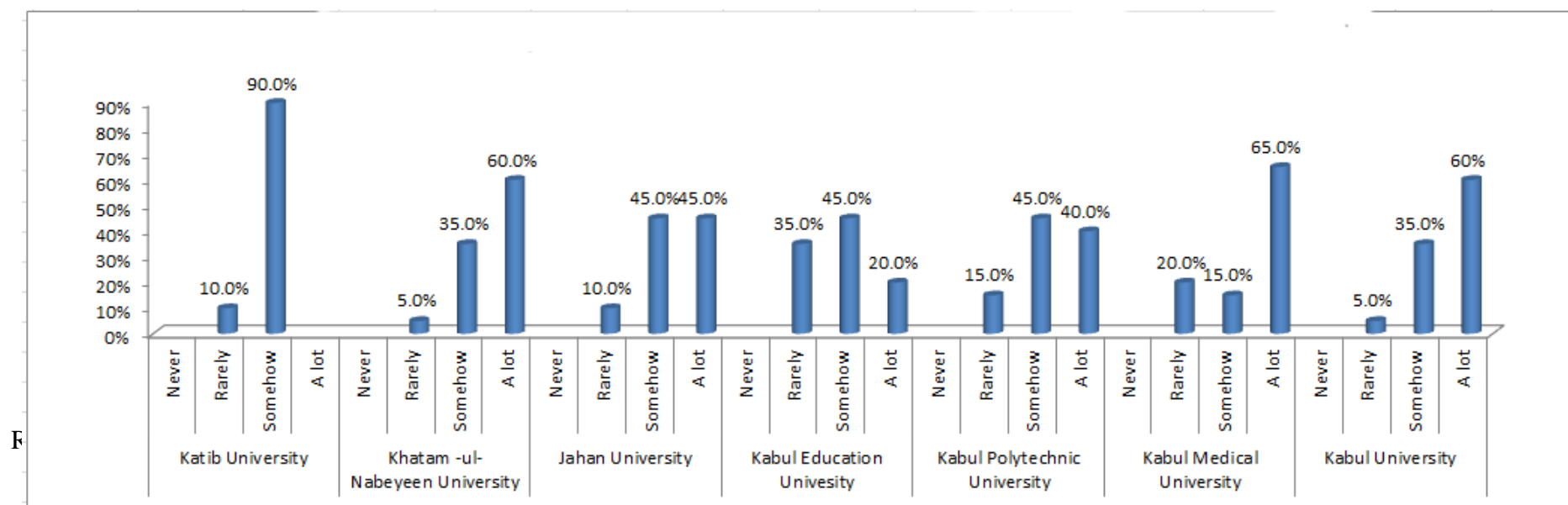


Resource: Research Findings

Graph 15: Level of students' awareness about CMS

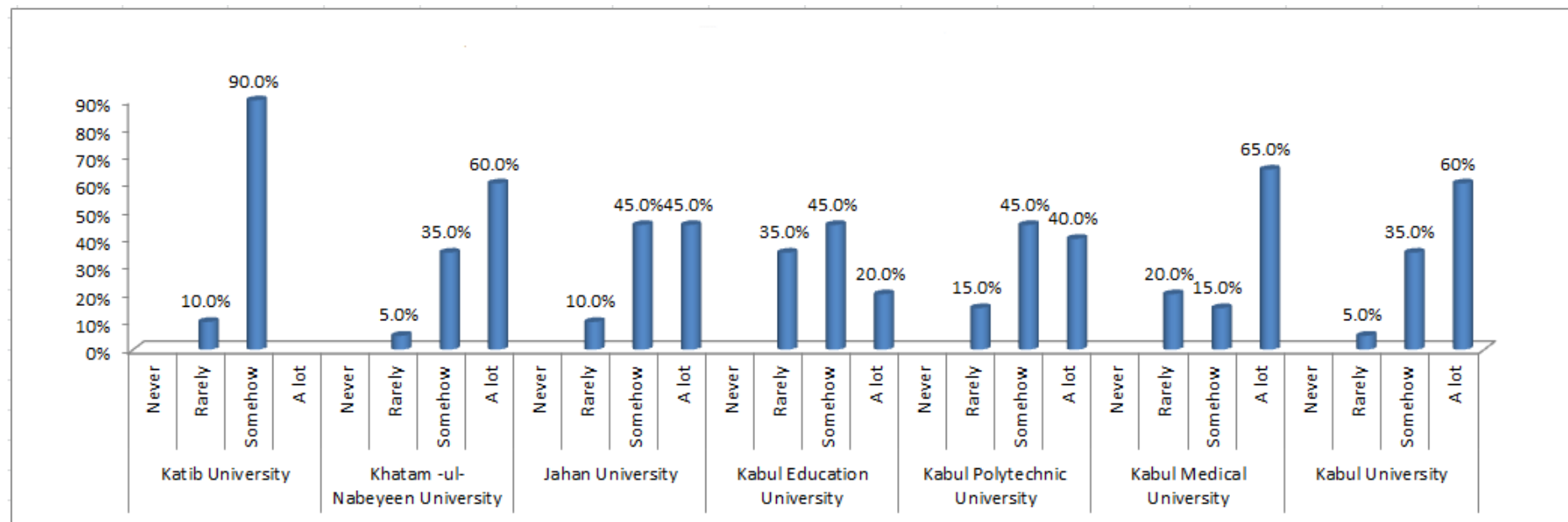
The fifth point found in this research is that the amount of facilities existed in each university is vary. For example, all universities have access to electricity but with respect to Internet challenges are existed. Some universities have access to the Internet but it has very low speed which takes minutes and sometime even hours to open a webpage.

Some universities have access to the Internet but their Internet is not stable; it works for one hour, the next hour it is gone. There are universities which have access to decent internet and this is the reason that they have CMS and use it for leading their administrative and educational affairs.



Graph 16: The level of necessary facilities (such as electricity, computer, Internet) existence in university

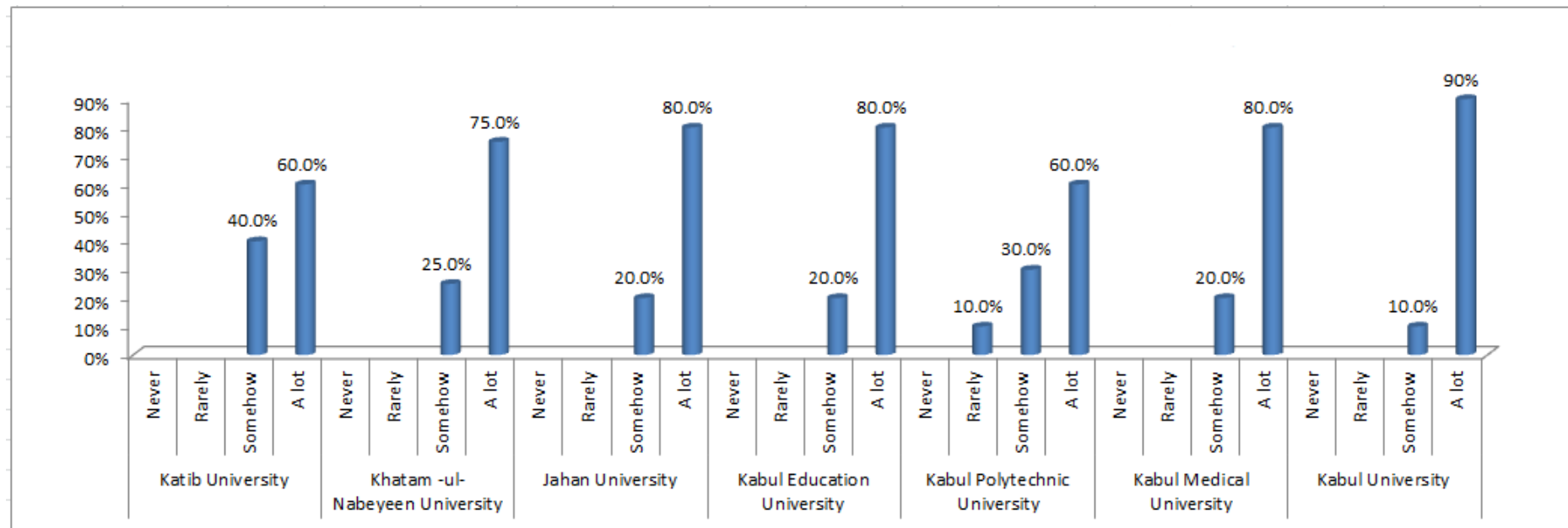
The sixth point founded in this research is that all administrators, lecturers, and students are eager to use CMS. This system is fast, efficient, and reliable. This is the reason that their eagerness grows each days and paving the way to transform classic content management system to content management system.



Resource: Research Findings

Graph 17: Level of students' eagerness for using CMS

The last point founded in this research is that all administrators, instructors, and students believe that CMS can fulfill their needs. Data of this system can be accessed from anywhere and at any time. Taking this point in mind, it is believed that CMS can fulfill the needs them comprehensively.



3.5. CONCLUSION

The research conducted with respect to “Transformation of Kabul based universities from using Classic Content Management System to Web Content Management System: Key issues and challenges resulted in the following conclusion:

1. All directors, instructors, and students agree that classic content management system is an out of dated system and cannot fulfill the needs their needs. It has to be replaced with Content management system after all facilities required by CMS is provided.
2. All directors, instructors, and students are eager to use CMS in their faculties and universities. This system is more sufficient, reliable, and economical. This is the reason that all university stakeholders would like to convert classic content management system to web content management system.
3. All administrators, instructors, and students agree that CMS can fulfill the needs of them. The data of this system can be accessed at anytime and anywhere.
4. It is mentionable that all Kabul based universities have access to electricity and computers, but the existence and speed of the Internet still remain. Some universities have access to the Internet but it has slow speed which cannot open even a simple webpage quickly. Some universities have access to the Internet but it is not stable; universities have internet one hour and the next hour it is gone. Some universities have access to stable internet and this is the reason that they have CMS and use it for administrative and educational affairs.
5. The results and finding of this research indicates that the procedure of sharing chapter notes and other learning resources in public universities are different than private. The instructors of public universities share hard copy of their chapter notes with the representatives of each class to make copies of the note and distribute accordingly. On the other hand, the lecturers of private universities share soft copy of their notes with all targeted students.
6. Taking the advantages and facilities of Moodle in mind (as stated in discussion part), I recommend this platform for Kabul based universities to use it for all formats of eLearning.

3.6. SUGGESTIONS

Taking the conclusion in mind, following suggestions are listed. If the responsible authorities consider these suggestions, chances are the problems and challenges administrators, instructors, and students currently have will reduce if not completely solved and pave the way to using CMS.

The suggestions are as follow:

1. Each faculty should have an equipped computer lab with internet facility so that instructors can post and upload chapter notes, assignments, and exam results to their faculty's CMS, and students can download them at anytime and anyplace.
2. All universities in order to have CMS need stable and high bandwidth internet which they lack currently. The Ministry of Higher Education and responsible administrators should provide these facilities for all universities.
3. A large percentage of administrators, instructors, and students do not have enough awareness about CMS; therefore, it is important that a decent training should held for them where enough information is given to them about the advantages of CMS for all stakeholders.
4. It is important that all university's top order administrators in coordination with Ministry of Higher Education continuously talk to national and international donors and encourage them to assist universities in providing ICT tools and well equipped computer labs.
5. Finally, I suggest, Moodle, an open source platform, for Kabul based universities to use it for teaching and learning. It is free, adoptable and easy to use.

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3.8. APPENDIX A

INTERVIEW QUESTIONS

(INSTRUCTORS)

This interview is designed to find problems and challenges resulted from using classic management system and transforming it to web content management system in Kabul based universities

Name:..... (Optional)

Faculty:

University:.....

Sex ☐ Male ☐ Female

Date:.....

1. How do you share chapter notes and assignments with students via classic management system?
2. How do you share exam grades with students and department of student affairs?
3. In your opinion, what are the weaknesses of classic management system?
4. Do you know something about web content management system?
5. Does your faculty have the facility of electricity, computer, and the Internet?
6. Do your department/faculty instructors know how to use web content management system?
7. In your opinion, what are the advantages of web content management system for the department of student affairs, instructors, and students?
8. From your prospective, what are the financial benefits of web content management system?
9. Do instructors, director of student affairs, and students need the training of how to use web content management system?
10. Which content management system is more effective, fast, and cost effective and why?
11. What are your suggestions for effective use of WCMS?.....

APPENDIX B

QUESTIONNAIRE

(STUDENTS)

This questionnaire is designed to find problems and challenges resulted from using classic management system and transforming it to web content management system in Kabul based universities

Name:..... (Optional)

Department:.....

Faculty:

University:.....

Sex ☐ Male ☐ Female

Date:.....

1. Does classic content management system fulfil need of students?

☐ a lot ☐ average ☐ limited ☐ No

2. Does classic content management system fulfil need of student affairs department?

☐ a lot ☐ average ☐ limited ☐ No

3. How much percentage interested are you in using content management system?

☐ 100% ☐ 50% ☐ 25% ☐ 0%

4. What is web content management system?

.....
.....

5. Do instructors and students know the importance of using web content management system in your faculty?

☐ a lot ☐ average ☐ limited ☐ No

6. What benefits web content management system has for students, instructors, and department of student affairs?

.....
.....
.....

7. How much eagerness for transforming classic content management system to web content management system exists among university stakeholders?

☐ a lot ☐ average ☐ limited ☐ No

8. Does your faculty have the facility of electricity, computer, and the Internet?

☐ Yes ☐ No

9. Do students and instructors have the basic computer literacy skills on how to use computer, the Internet, and application programs?

☐ a lot ☐ average ☐ limited ☐ No

10. Do chair of departments, instructors, and students eager to replace classic content management system to web content management system in your faculty?

☐ a lot ☐ average ☐ limited ☐ No

11. In your opinion, Can web content management system fulfil the needs of students, instructors, and department of student affairs?

☐ a lot ☐ average ☐ limited ☐ No

12. Which content management system is more efficient, fast, and cost effective?

☐ Classic content management system ☐ Web content management system

13. What facilities web content management system has for students to fulfil their needs?

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.....
.....
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APPENDIX C

INTERVIEW QUESTIONS

(DIRECTORS OF STUDENTS AFFAIRS)

This interview is designed to find problems and challenges resulted from using classic management system and transforming it to web content management system in Kabul based universities

Name:..... (Optional)

Faculty:

University:.....

Sex ☐ Male ☐ Female

Date:.....

- 1) Which procedure do you currently use for the registration of new students?
- 2) How do you share attendance sheets and exam results with student?
- 3) How do you prepare instructors salary and students' accommodation expenses reports?
- 4) Which procedure do you use for managing students' exam results and graduates' transcript?
- 5) Which procedure do you use for sharing exam results with student?
- 6) What are the main challenges of classic content management system?
- 7) Which facilities (electricity, computer, the Internet) do you have in your faculties said:
- 8) Do you need any particular training for using CMS?
- 9) What are the advantages of CMS for departments of students' affairs?
- 10) What are the financial benefits of CMS?
- 11) What facilities web content management system should have for directorate of students' affairs to fulfill their needs?